

Preliminary Ecological Assessment

Land at Thistledown Cottage

Harbolets Road

West Chiltington

RH20 2LG

NGR: TQ 10013 21022



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Sylvatica Ecology Ltd

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Limitations and Liabilities

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It should be borne in mind that the behaviour of animals can be unpredictable and may not conform to standard patterns recorded in scientific literature. Therefore, this report cannot predict with absolute certainty that animal species will occur in apparently suitable locations or habitats, or that they will not occur in locations or habitats that appear unsuitable.

In order to minimise the likelihood of adverse effects on protected animal species over time, it is accepted good practice, in accordance with Natural England (NE) (formerly English Nature) guidance for ecological surveys to be repeated should works be deferred for over 12-18 months from the date of initial survey.

It is the duty of the landowner, developer and operations managers to act responsibly and to comply with current environmental legislation if protected species are suspected or found prior to, or during works.

The recommendations and information contained within this report are based on the information provided on the development works prior to the surveys being carried out. Should the development proposals change then the findings and recommendations contained within would potentially require revision.

The findings within this report do not constitute as legal advice. Should this be required, then a suitably qualified professional practitioner should be contacted.

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1.0 SUMMARY

- 1.1 This report presents the findings of a Preliminary Ecological Assessment (PEA) at Thistledown Cottage, Harbolets Road, West Chiltington, RH20 2LG, NGR: TQ 10013 21022. The area of developmental impact was limited to the hard standing, brick agricultural building and timber stable building. A wider area was surveyed so to enable incorporation of the adjacent habitats into biodiversity net gain and associated ecological enhancement.
- 1.2 Thistledown Cottage was situated within a rural location within West Sussex along Harbolets Road. The site survey area comprised of the ground slightly to the north of the residential building which was within part of a block of deciduous woodland. The surrounding land comprised of a mixture of pasture and arable agricultural land, with horse grazing pasture also present. Some of the agricultural fields were segregated through hedgerows and some with fencing. There were also some residential properties withing the surrounding landscape.
- 1.3 The total survey area was 0.58ha with the approximate development impact area being 0.03ha. The habitats present within the impact area comprised of hard standing, brick agricultural building and timber stable building . The habitats present within the wider site survey area comprised of deciduous woodland, native species hedgerow, an area of horse grazed modified grassland and a smaller area of recently seeded modified grassland.
- 1.4 There were not any nationally designated statutory sites within 2.0km and internationally statutory sites within 5.0km of the application site.
- 1.5 There was a block of deciduous woodland immediately adjacent to the application site, but this did not carry an ancient woodland designation. The nearest unit of ancient woodland was approximately 150m to the south.
- 1.6 The brick agricultural building and glasshouse had a **negligible** potential to support roosting bats but the Timber Stable Building had previously been surveyed with evidence of **roosting bats** present the wider landscape had a high value for bat foraging. Therefore, recommendation for bat emergence surveys/ mitigation licencing and bat sensitive lighting has been provided.
- 1.7 The great crested newt risk assessment calculation has given a category of **Green: Offence Highly Unlikely**. However, a precautionary method of works has been recommended for great crested newt (and reptile and amphibians) due to this site being within the Red Risk zone for great crested newt.
- 1.8 The woodland and hedgerow habitat had potential to support dormice, but this habitat is outside of the development footprint. Measures to protect this habitat have been recommended as has the drafting of a construction environmental management plan (CEMP)
- 1.9 There was potential for nesting birds to be present in buildings and vegetation. Measures to avoid impact on these have been provided.

2.0 INTRODUCTION

2.1 This report presents the findings of a Preliminary Ecological Assessment (PEA) of land at Thistledown Cottage, Harbolets Road, West Chiltington, RH20 2LG, NGR: TQ 10013 21022. The location of the site survey area is provided in **Figure 1** below. The area of developmental impact was limited to the hard standing, brick agricultural building and timber stable building. A wider area was surveyed so to enable incorporation of the adjacent habitats into biodiversity net gain and associated ecological enhancement.

2.2 *Figure 1: Site Survey Location (Red Line Boundary)*



Site Location

2.3 Thistledown Cottage was situated within a rural location within West Sussex along Harbolets Road. The site survey area incorporated the ground slightly to the north of the residential building which was within part of a block of deciduous woodland. The surrounding land comprised of a mixture of pasture and arable agricultural land, with horse grazing pasture also present. Some of the agricultural fields were segregated through hedgerows and some with fencing. There were also some residential properties withing the surrounding landscape.

Aim of the Study

2.4 The aim of this habitat survey was to assess the habitats present on and adjacent to the property and to evaluate the potential for protected species to be present. Recommendations on any further survey requirements, actions to preserve the habitats present and

enhancements have been made as a result of the findings of this habitat survey. These findings should be used within the design phase of the proposals, to minimise the impacts for biodiversity, through careful design to avoid negative effects where possible. The survey findings then enable a prediction of the potential impacts of any ecological receptors present to be made in each specific case.

Development Proposal

- 2.5 It is proposed that a residential building be constructed on the footprint of the location of hard standing, brick agricultural building and timber stable building. This area will be removed and residential accommodation installed in place. There will be habitat improvement and planting within the wider area to enhance the habitats for biodiversity net gain, which includes the woodland and modified grassland areas. The impact area for the development is approximately 0.03ha in size.

3.0 METHODOLOGY

Ecological Survey

- 3.1 A preliminary ecological survey walkover was carried out at the Site on the 22nd April 2024. The habitats were assessed in accordance with BS 42020 Biodiversity – Code of Practice for Planning and Development and broadly followed the ‘Extended Phase 1’ methodology as set out in the Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines for Baseline Ecological Assessment and the Handbook for Phase 1 Habitat Survey. This method of survey provides information on the habitats in the survey area and assesses the potential for legally protected species to occur on or adjacent to the Site. The habitats were classified according to the UK Habitat Classification system (Butcher *et al.* 2023).
- 3.2 Any faunal species identified during the survey were noted. Any evidence for the presence of, or potential for, protected species was also noted. In particular, amphibians, bats, reptiles, mammals and birds were included.
- 3.3 A search was carried out for evidence of the presence of invasive plants listed on Schedule 9 of the Wildlife and Countryside Act 1981 which are subject to strict legal control. The list of invasive plant species included on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) is extensive and these plants are found in a range of different habitats.
- 3.4 An assessment of the potential of the property to support roosting and foraging bats was made and categorised according to **Table 1** below (BCT 2023a).

Table 1: Bat Roost and Foraging Potential of Buildings and Trees (BCT 2023)

Category	Roosting Habitat	Commuting and Foraging Habitat
Known Roost	Evidence of bat present (e.g.) droppings, live or dead bats and/ or desk study results	N/A
High/ PRF-M	Building or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitats.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.
Moderate/ PRF-M	Building or tree with one or more potential roosting features that could be used by several bats due to their size, shelter, protection, conditions and surrounding habitats, but unlikely to support a roost of high conservation concern.	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
Low/ PRF-I	Building or tree with one of more potential roost features that could be used by individual bats opportunistically. However, there	Habitat that could be used by small numbers of commuting bats for example, a fragmented hedgerow or un-vegetated stream, but isolated, i.e.

	potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/ or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats. (<i>i.e.</i> unlikely to be suitable for maternity or hibernation).	not very well connected to the surrounding landscape by other habitats.
		Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Negligible	Building or tree with no potential to support any bats.	Negligible habitat features on site likely to be used by commuting or foraging bats

Designated Sites and Biological Records

- 3.6 A 2k.0m radius historical data search was carried out using the National Biodiversity Network. This checked for protected species records within 2.0km of the application site.
- 3.7 Records of designated statutory sites within the 2km of the Site were searched for using the Multi-Agency Geographic Information for the Countryside website (MAGIC) <http://www.magic.gov.uk>.
- 3.8 MAGIC was also searched for previously granted Natural England licence applications, which may give an indication of the presence of protected species in the local area.

Habitat Mapping Methods

- 3.9 The mapping was carried out using QGIS V 3.22.14-Bailowieza for MasOS 14.1. Habitat areas and any pond distances/ areas *etc* from site were calculated using this QGIS software.

Qualification of Author

- 3.10 The survey work and reporting has been led by Richard Law BSc MRes CEnv MCIEEM FLS. Richard has been undertaking ecological survey work within the last 18 years on many different locations throughout the United Kingdom, for a variety of protected species, including bats (Class 2 2015-12576), reptiles, amphibians including great crested newt (*Triturus cristatus*) (Class 1 2016-20290) and terrestrial mammals including dormice (*Muscardinus avellanarius*) (Class 1 2015-13188) and birds including barn owl licence (CL29/00236). Richard is also qualified in track and sign and trailing *via* an international system of assessment (www.trackercertification.com).

4.0 RESULTS

- 4.1 This section describes the habitats identified during the habitat survey. All the plant species names follow the nomenclature of Stace 1997; a map detailing the locations of the habitats described can be found in Appendix A, locations of priority habitats in Appendix B, locations of water bodies close to the property in Appendix C and photographs of the property taken at the time of the survey can be found in Appendix D. A summary of the protected species and habitats legislation for England and Wales can be found in Appendix E.

Designated Sites and Priority Habitat

- 4.2 There were not any nationally designated statutory sites within 2.0km and internationally statutory sites within 5.0km of the application site.
- 4.3 There was a block of deciduous woodland immediately adjacent to the application site, but this did not carry an ancient woodland designation. The nearest unit of ancient woodland was approximately 150m to the south.

Bats

- 4.4 **Table 2: Bat Species Records**

Latin Name	Common Name	Number of Records
<i>Nyctalus noctula</i>	Noctule Bat	1

- 4.5 There was a single bat species present within the historical records search. This was a noctule with a single record.

Terrestrial and Riparian Vertebrates

- 4.6 **Table 3: Amphibian and Reptile Records**

Latin Name	Common Name	Number of Records
<i>Anguis fragilis</i>	Slow Worm	3
<i>Natrix helvetica</i>	Grass Snake	7
<i>Vipera berus</i>	Adder	4
<i>Zootoca vivipara</i>	Common Lizard	1
<i>Triturus cristatus</i>	Great Crested Newt	1
<i>Bufo bufo</i>	Common Toad	5
<i>Lissotriton vulgaris</i>	Smooth Newt	2

4.7 There were four species of amphibian present within the 2.0km search radius. Common frog and common toad were present as were smooth newt. The great crested newt, which is a European protected species, was present with a single record.

4.8 Four species of reptile were present. Common lizard was present, with a single record, with adder with four records. Grass snake were present, with seven records and there were three records of slow worm.

4.9 **Table 4: Terrestrial and Riparian Mammal Records**

Latin Name	Common Name	Number of Records
<i>Erinaceus europaeus</i>	Hedgehog	4
<i>Micromys minutus</i>	Harvest Mouse	1

4.10 There were records of hedgehog within the 2.0km search radius and a single record of harvest mouse.

Granted Mitigation Licences

4.11 **Table 5: Natural England Mitigation Licences**

Licence Number	Distance and Direction	Species	Type	Date	NGR
2014-3595-EPS-MIT	1.7km northwest	Great Crested Newt	Damage and Destruction of a Resting Place	19/12/2014 to 30/10/2020	TQ: 0934 2248
2018-34018-EPS-MIT	1.8km west	Natterer's Bat	Destruction of a Resting Place	23/04/2018 to 31/07/2018	TQ 0833 2139

4.11 There was a single granted Natural England mitigation licence for the damage and destruction of a resting place for great crested newt and a single licence for the destruction of a resting place for Natterer's bat (*Myotis nattereri*).

Summary of Habitats Present on Site

4.12 The total survey area was 0.58ha with the approximate development impact area being 0.03ha. The habitats present within the impact area comprised of hardstanding, a brick

agricultural building and a timber stable building. The habitats present within the wider site survey area comprised of deciduous woodland, native species hedgerow, an area of horse grazed modified grassland and a smaller area of recently seeded modified grassland.

Habitats Present on Site within the Survey Boundary

- 4.13 **Native Species Hedgerow** - The eastern aspect of the site was demarcated by a hedgerow. The species present were hawthorn (*Crataegus monogyna*), hazel (*Corylus avellana*), elder (*Sambucus nigra*) and field maple (*Acer campestre*). The height of the hedge was around 2.5m, with a width of approximately 2.0m.
- 4.14 **Lowland Deciduous Woodland** – The largest habitat type within the survey area consisted of this. This tree cover comprised of oak (*Quercus robur*), which were all relatively uniform in age structure. The ground layer was quite sparse within most of this habitat, with the ground flora being more apparent along the western edge of this location. Where present, the ground flora consisted of bluebell (*Hyacinthoides non-scripta*), wood sedge (*Carex sylvatica*), tormentil (*Potentilla erecta*), primrose (*Primula vulgaris*), lesser stitchwort (*Stellaria graminea*) and herb Robert (*Geranium robertianum*). The edges of this habitat area had nettle (*Urtica dioica*), jack-by-the-hedge (*Alliaria petiolata*), lords and ladies (*Arum maculatum*), daisy (*Bellis perennis*) and dandelion (*Taraxacum officinale*) present. The western and northern edge of this habitat had a developing shrub layer, the species of which consisted of hawthorn (*Crataegus monogyna*), holly (*Ilex aquifolium*), hazel (*Corylus avellana*), blackthorn (*Prunus spinosa*) and elder (*Sambucus nigra*).
- 4.15 **Modified Grassland** – The large field to the west of the deciduous woodland was, at the time of the survey, in use for horse grazing pasture. The sward was very short and the ground was heavily poached in some locations. The species composition was very limited with meadow foxtail (*Alopecurus pratensis*), Yorkshire fog (*Holcus lanatus*), lesser celandine (*Ficaria verna*), ribwort plantain (*Plantago lanceolata*) with cuckoo flower (*Cardamine pratensis*) present around the edges of this habitat.
- 4.16 **Modified Grassland** – There was a small patch of this habitat type to the immediate north of the stable building. This location appeared to have been recently sown with lawn species which comprised of perennial rye grass (*Lolium perenne*) with herbaceous species present, which comprised of encroaching nettle, common sorrel (*Rumex acetosa*), ground ivy (*Glechoma hederacea*) and creeping buttercup (*Ranunculus repens*).
- 4.17 **Hard standing and Bare Ground** – There was an area of hard standing around the brick agricultural building and timber stable building, which did not present any ecological value and

there were areas of bare ground present, notably a patch of ground used as a fire site and part of an access track into the woodland. These areas did not present any ecological value and were regularly used.

- 4.18 **Buildings** - There were three buildings within the site survey area. The smaller building comprised of a glasshouse, which was adjacent to the small vegetative plot used for growing vegetables. The glass house did not exhibit any ecological value. There was also a small polytunnel within the woodland block which was a temporary structure of no ecological value. The stable building was surveyed previously as part of a bat roost assessment (Syntegra 2022), but outside of the initial preliminary ecological assessment survey area. This was then incorporated into the scheme.

- 4.19 There was a brick agricultural building, which is to be demolished as part of the development proposals. The walls were constructed out of a single layered wooden cladding, with the roof comprising of a single layer of corrugated sheeting with bitumen felt insulation. The supporting roof beams were machine cut with no gaps at the joins. The ground had a layer of straw bedding and horse manure indicating regular usage for by horses. The soffit edges of this building were not sealed and exposed to the underneath, with no gaps or crevices present.

Invasive Species

- 4.20 There were not any invasive species found within the site survey area. Some small stands could potentially be obscured within the thicker areas of vegetation present to the north and west of the site.

5.0 POTENTIAL FOR PROTECTED SPECIES

Breeding

- 5.1 A number of bird species were observed on the property and around the adjacent land. These were; woodpigeon (*Columba palumbus*), crow (*Corvus corone*), magpie (*Pica pica*), blue tit (*Cyanistes caeruleus*), great tit (*Parus major*), robin (*Erithacus rubecula*), wren (*Troglodytes troglodytes*) and goldfinch (*Carduelis carduelis*).
- 5.2 Throughout the survey area, there was the potential for birds to nest within the buildings, trees and shrubs.

Bats

- 5.3 The trees present on site were relatively mature but were subject to regular management and did not exhibit features such as cracks, woodpecker holes or splits that bats could potential utilise for roosting. Therefore, the trees onsite can be considered as ***negligible*** potential for bats. Furthermore, no tree felling is proposed as part of this development plan. The brick agricultural building and greenhouse did not have any features that bats could utilise for roosting, neither did the greenhouse or polytunnel. These two buildings can be considered as having a ***negligible*** potential for roosting bats.
- 5.4 A preliminary roost assessment was conducted on the Stables Building (Syntegra 2022). This survey identified features of interest for roosting bats, notably missing bricks, a missing tile, lifted ridged tiles and some gaps under the eaves (potentially covered in wire mesh). Bat droppings were observed within this building.
- 5.5 The woodland and adjacent habitats had a high value for bat foraging, notably along the edges of the deciduous woodland and grazing pasture. There was habitat connectivity through hedgerows and treelines along woodland edges throughout the landscape. This connectivity is not to be impacted by the proposed development works and will not impact any potential/proposed strategic wildlife corridors.

Reptiles and Amphibians

- 5.6 The ground flora layer was limited to the western edge of the woodland habitat, with the ground being either bare or sparsely vegetated. The modified grassland to the north appeared to be relatively recent and small, which would limit the potential for reptile species to be present. Furthermore, there were chickens present roam relatively freely throughout the survey area. These would likely predate any reptiles present, further limiting the potential for these to be present. Reptiles are not considered to be a constraint to this project.

5.7 There were 15 ponds within an approximate 500m radius from the development site and the site is potentially within the Red Risk Zone for great crested newt presence. Furthermore, there was a granted Natural England licence relating to the presence of great crested newt within 1.7km of the application site. The proposed development footprint, however, is relatively small at approximately 0.03ha. The woodland habitat and hedgerow are not to be impacted by the proposed works, with the areas impacted not considered to support great crested newt. A risk assessment calculation has been carried out. With the assumption that the closest pond would potentially be a breeding pond, this being in the 100m-250m from any breeding pond. The risk assessment calculation gives a National Offence Probability Score of 0.01, which is Green: Offence Highly Unlikely.

5.8 **Table 6: Great Crested Newt Impact Risk Calculator (from Natural England)**

<i>Component</i>	<i>Likely Effect</i>	<i>Notional Offence Probability Score</i>
Great crested newt breeding pond(s)	No effect	0
Land within 100m of any breeding pond(s)	No effect	0
Land 100-250m from any breeding pond(s)	0.01ha – 0.1ha lost or damaged	0.01
Land >250m from any breeding pond(s)	No effect	0
Individual great crested newts	No effect	0
Maximum:		0.01
Rapid risk assessment result:	GREEN: OFFENCE HIGHLY UNLIKELY	

Terrestrial and Riparian Mammals

5.9 There were records of hedgehog and harvest mouse within the 2.0km search radius. Hedgehog habitat was present within the ground level vegetation and hedgerow with foraging opportunity throughout the site survey area. There was not any suitable habitat for harvest mouse present within the site survey area. No evidence of () was observed within the site survey area, or within a 30m radius around the site boundary and there were not any features present, onsite, that could potentially support riparian mammals.

- 5.10 The woodland and hedgerow habitat presented potential habitat for dormice. These species could potentially use this vegetation for foraging and commuting throughout the local area. There was connectivity to the woodland and hedgerow to the wider landscape. At this stage, this habitat is not considered to be impacted by the proposed development works.

6.0 DISCUSSION AND RECOMMENDATIONS

Designated Sites and Habitats

- 6.1 There were not any designed sites within 2.0km but there was an area of ancient woodland to the south, approximately 150m away. This was well outside any required buffer zone for any development of this type. The deciduous woodland within the site survey area was a priority habitat and there were orchard habitats to the south. These locations are not to be impacted by the proposed development works directly.
- 6.2 Measures to protect the deciduous woodland habitat is recommended. During the construction phase, it is recommended that this area be protected, through the use, of Heras fencing, which will prevent any incursion into this location. A buffer zone of 5.0m would be implemented and a construction environmental management plan (CEMP) would be drafted and adhered to, to protect the adjacent habitats.

Birds

- 6.3 Breeding birds are protected, making it an offence to intentionally (or recklessly) kill, injure or take any wild bird, and to take, damage or destroy the nest of any wild bird while that nest is in use or being built, or take or destroy an egg of any wild bird. As a result, any vegetation clearance should avoid the breeding season (March to August inclusive). Nests are protected throughout the year, not just within the specified nesting season.
- 6.4 If this were not possible, a suitably experienced ecologist would be required to check areas of vegetation, immediately prior to works being carried out (within 24hrs). If birds were found to be breeding at this time in these locations, clearance works would not be permitted to proceed until the young had fledged the nest and at least a 10.0m works exclusion zone be placed around the nest. If any vegetation is cleared outside of the bird nesting season, then all resultant brash should be removed from site to ensure that it does not provide suitable nesting habitat.

Bats

- 6.5 The Timber Stables Building exhibited features that had potential for the presence of roosting bats. Bat droppings were also previously noted within this building, some considered relatively recent at the time of the 2022 survey. The recommendations given within this report are that emergence surveys should be carried out through the bat activity season (May to August/September). It is likely that three surveys would be required, with at least two of these surveys carried out between May and August (inclusive) to incorporate the maternity season. Each survey would have to be a minimum of three weeks apart. Due to the presence of bat droppings, it is highly likely that this building would be classified as a bat roost and therefore to demolish this building, Licence from Natural England would be required. The type of this licence would be determined by the species of bat and the type of roost present. For this licence to be granted, planning permission would be required, in the first instance.
- 6.6 Excessive light spill onto adjacent habitat can have a detrimental impact on ecological receptors that rely on darkness such as bats and invertebrates. The bat conservation trust has published guidance that enables developers to both avoid light spill into adjacent habitats and to make use of lighting that has been found to have a lesser impact on nocturnal wildlife. These recommendations are outlined within BCT Guidance (2023). This will reduce any impact light pollution would have on nocturnal activity of fauna, namely bat species, some of which are extremely sensitive to light pollution. Light spill into adjacent habitats will be reduced and avoided by the following:
- *All luminaries will lack UV elements; metal halide and fluorescent sources will be avoided,*
 - *A warm white light spectrum on external lighting will be adopted (<2700kelvin) to reduce the blue light component,*
 - *LED luminaries will be used where a sharp cut off is required to avoid light spill into adjacent habitat,*
 - *External luminaries will feature wavelengths higher than 550nm to avoid the component of light most disturbing to bats,*
 - *Column heights of external lighting will be limited,*
 - *Luminaries will be mounted on the horizontal plane, with no upwards tilt,*
 - *Security lighting will be set on motion sensors and on short timers (<1min).*

Great Crested Newt, Amphibians and Reptiles

6.7 This size of works impact footprint is slightly under 0.03ha. However, to account for any potential presence of great crested newt, amphibian or reptile within the wider landscape, while extremely unlikely onsite, a precautionary method of works is recommended.

- *The schedule of works is yet to be finalised, but any vegetation and soil removal should be undertaken outside of the terrestrial phase of the life cycle of great crested newt. This period is normally considered to be between March and April, with this species within aquatic habitats for their breeding season,*
- *Vegetation removal would be carried out by hand and these clearance works would be supervised by a licenced ecological consultant. This licenced ecologist would only be required onsite during this vegetation removal but would brief all site workers on amphibian identification and what to do if one is found and where to relocate it to, with the worker given advice on how to proceed with care and where to relocate any amphibian if required. If great crested newt are found, the works would cease and consultation sought with the licenced ecological consultant,*
- *Hibernaculum habitat would be created prior to the start of the construction phase, with this being situated outside of the works impact zone. This would consist of a mixture of soil over stone and untreated wood, normally cut vegetation. Any amphibians or reptiles found would be moved to this hibernacula,*
- *Any excavations should be covered at night to prevent any amphibians falling in and becoming trapped. This would also be applicable to mammals,*
- *Ground works would be carried out for a short a period as possible and all works would be conducted during daylight hours only, so to above the time when great crested newt are most active,*
- *The storage of any debris, soil or cut vegetation on site would be avoided to prevent this becoming hibernacula for great crested newt and reptile species.*

Dormice

6.8 The potential presence of dormice within the proposed development site must be considered as dormice are protected under the Wildlife and Countryside Act (WCA) 1981 (as amended). The WCA states that '*a person is guilty of an offence if intentionally or recklessly they disturb [a dormouse] while it is occupying a place which it uses for shelter or protection; or he obstructs access to any place which [a dormouse] uses for shelter or protection*'.

6.9 Dormice are also protected under the Conservation of Habitats and Species Regulations 2019. Dormice are listed as European protected species under which it is an offence if;

- *a person deliberately captures, injures or kills any wild animal of a European protected species;*

- *deliberately disturbs wild animals of any such species;*
- *damages or destroys a breeding site or resting place of such an animal.*

6.10 Disturbances of animals include in particular any disturbance which is likely to impair their ability to;

- *survive, breed or reproduce, or to rear or nurture their young;*

6.11 To avoid any impacts on the surrounding deciduous woodland, and therefore avoiding any potential impact on dormice, it is recommended to install suitable fencings (Heras fencing, for example), leaving between a 1.0m and 2.0m buffer zone between the areas of deciduous woodland, hedgerow and the development/ works area. This variation would be dependant on the proximity of the buildings to be demolished to the hedgerow habitat. This buffer zone would prevent any incursion into these areas and would prevent any impact on this habitat. The avoidance of any vegetation removal within this habitat is recommended.

Terrestrial Mammals

6.12 Hedgehog have seen their number decline significantly over the last 13 years by around 66%. There were records for hedgehog within 2km. The rubble may provide suitable refuge for hedgehogs and the habitat had some potential to support foraging hedgehogs if they are present in the local area.

6.13 During the construction phase any deep trenches or excavations should be covered overnight to ensure any animals including hedgehogs, do not become trapped. This measure would also be pertinent for all mammals, including [REDACTED]

6.14 To enhance the site for hedgehog post-development the planting of native trees and hedgerows and the provision of gaps of at least 15cm by 15cm under any fences will ensure this species continues to have access to the site and can use the site for foraging, commuting and shelter.

Invasive Species

6.15 No invasive species were apparent at the time of the walkover survey. However, these may be obscured by thick vegetation in places. If any vegetation clearance takes place, a precautionary check prior to this is recommended to ensure that no invasive plant species are present and likely to be spread, off site, due to vegetation removal.

7.0 ECOLOGICAL COMPENSATION AND ENHANCEMENT

7.1 Development plans should maximise opportunities for enhancement, in order to, achieve a net increase in biodiversity. The measures outlined below provide the means to achieve this enhancement.

7.2 Tree and shrub planting of native species within the woodland would provide an ecological enhancement by enabling a more complex habitat structure to develop within the woodland. Enabling the bare ground areas to become vegetated and to encourage a more diverse flora assemblage to develop within the woodland, will further enhance the biodiversity value of this habitat area.

7.3 Herbaceous species could also be seeded into the modified grassland to the west providing a valuable nectar source for invertebrate species. This could be enhanced, through limiting grazing and permitting a more diverse herbaceous sward to develop. This would be achieved through drafting and following a specific management plan to develop a lowland meadow. Some mixed scrub planting could also be installed, along with hedgerow and tree planting. These would further enhance the biodiversity value of this location, giving a greater number of Habitat Units for biodiversity net gain.

7.4 **Table 7: List of Recommended Plant Species for Native Tree and Shrub Planting**

Species Name	Common Name
<i>Carpinus betula</i>	Hornbeam
<i>Corylus avellana</i>	Hazel
<i>Crataegus monogyna</i>	Hawthorn
<i>Prunus avium</i>	Bird cherry
<i>Quercus robur</i>	Oak
<i>Sambucus nigra</i>	Elder
<i>Sorbus aucuparia</i>	Rowan

8.0 REFERENCES

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Mitchell-Jones, A.J. & McLeish, A.P. (Eds) (2004). Bat Workers' Manual (3rd Ed.). JNCC, Peterborough.

Stace C. (1997) New Flora of the British Isles (2nd edition). Cambridge University Press.

Syntegra (2022) Preliminary Roost Assessment of Stable Building, Thistledown Barn, Harbolets Road, West Chiltington, RH20 2LG.

The Conservation of Habitats and Species Regulations 2017.

Wildlife and Countryside Act (1981) The Stationary Office, Norwich

APPENDIX A: PRELIMINARY ECOLOGICAL WALKOVER SURVEY HABITAT MAP



APPENDIX B: PRIORITY HABITATS



Image produced courtesy of Magic Maps (<http://www.magic.gov.uk/>, contains public sector information licensed under the Open Government Licence V3.0)

APPENDIX C: LOCATION OF WATERBODIES WITHIN 250M AND 500M



APPENDIX D: PHOTOS OF THE SITE

Plate 1: Adjacent Grazing Pasture Habitat



Plate 2: Building – Western Face



Plate 3: Building – Northern End



Plate 4: Building -Internal View



Plate 5: Deciduous Woodland



Plate 6: Deciduous Woodland – Western Edge

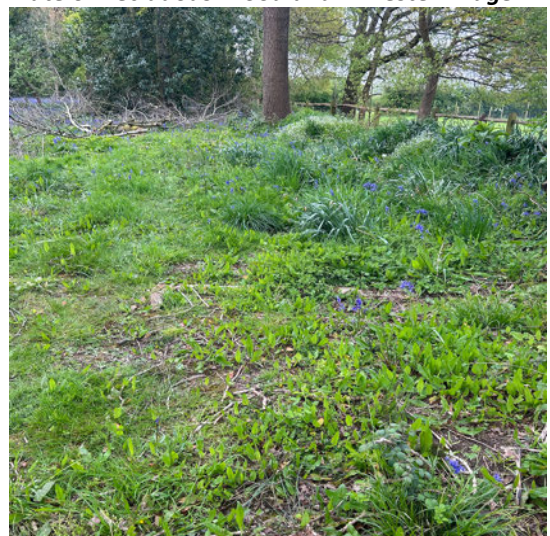


Plate 7: Newly Sown Modified Grassland



Plate 8: Deciduous Woodland – Ground Conditions



APPENDIX E: PROTECTED SPECIES AND DESIGNATED SITE LEGISLATION SUMMARY (ENGLAND AND WALES)

Species	Legislation (England & Wales)	Offences	Licensing procedures (England & Wales)
Bats European protected species	Conservation of Habitats and Species Regulations 2017	Deliberately ¹ capture, injure or kill a bat; deliberate disturbance ² of bats; or damage or destroy a breeding site or resting place used by a bat. [The protection of bat roosts is considered to apply regardless of whether bats are present.]	A Natural England (NE) licence in respect of development is required in England. European Protected Species: Mitigation Licensing- How to get a licence (NE 2010) Bat Mitigation Guidelines (English Nature 2004) Bat Workers Manual (JNCC 2004) BCT Survey Guidelines (2016)
	Wildlife and Countryside Act 1981 (as amended) S.9	Intentionally or recklessly obstruct access to any structure or place used for shelter or protection or disturb a bat in such a place.	Licence from NE is required for surveys (scientific purposes) that would involve disturbance of bats or entering a known or suspected roost site.
Great Crested Newt European protected species	Conservation of Habitats and Species Regulations 2017	Deliberately ¹ capture, injure or kill a great crested newt; deliberate disturbance ² of a great crested newt; deliberately take or destroy its eggs; or damage or destroy a breeding site or resting place used by a great crested newt.	Licences issued for development by Natural England. European Protected Species: Mitigation Licensing- How to get a licence (NE 2010) Great Crested Newt Mitigation Guidelines (English Nature 2001)
	Wildlife and Countryside Act 1981 (as amended) S.9	Intentionally or recklessly obstruct access to any structure or place used for shelter or protection or disturb a great crested newt in such a place.	Licences issued for science (survey), education and conservation by Natural England.
Dormice European protected species	Conservation of Habitats and Species Regulations 2017	Deliberately ¹ capture, injure or kill a dormouse; deliberate disturbance ² of dormouse; or damage or destroy a breeding site or resting place used by a dormouse.	A Natural England (NE) licence in respect of development is required in England. European Protected Species: Mitigation Licensing- How to get a licence (NE 2010)
	Wildlife and Countryside Act 1981 (as amended) S.9	Intentionally or recklessly obstruct access to any structure or place used for shelter or protection or disturb a bat in such a place.	Licence from NE is required for surveys (scientific purposes) that would involve disturbance of bats or entering a known or suspected roost site.

Species	Legislation (England & Wales)	Offences	Licensing procedures (England & Wales)
Birds	Wildlife and Countryside Act 1981 (as amended) S.1	Intentionally kill, injure or take any wild bird; intentionally take, damage or destroy the nest of any wild bird while that nest is in use or being built; intentionally take or destroy the nest or eggs of any wild bird. [Special penalties are liable for these offences involving birds on Schedule 1 (e.g. most birds of prey, kingfisher, barn owl, black redstart, and little ringed plover).] Intentionally or recklessly disturb a Schedule 1 species while it is building a nest or is in, on or near a nest containing eggs or young; intentionally or recklessly disturb dependent young of such a species.	No licences are available to disturb any birds in regard to development. Licences are available in certain circumstances to damage or destroy nests, but these only apply to the list of licensable activities in the Act and do not cover development. General licences are available in respect of 'pest species' but only for certain very specific purposes e.g. public health, public safety, air safety.
Adder Common lizard Grass snake Slow worm	Wildlife and Countryside Act 1981 S.9(1) (part); S.9(5)	Intentionally kill or injure any common reptile species.	No licence is required in England. However, an assessment for the potential of a site to support reptiles should be undertaken prior to any development works which have potential to affect these animals.
Rabbits, foxes and other wild mammals	Wild Mammals (Protection) Act 1996	Intentionally inflict unnecessary suffering to any wild mammal.	Natural England provides guidance in relation to rabbits (TIN003, Rabbits- management options for preventing damage, July 2007) and foxes (which are also protected under the Wildlife and Countryside Act 1981 from live baits and decoys, see TAN43 April 2005 and TAN08 April 2005) as well as other wild mammals; see Natural England's website for the list of 'Regulatory Guidance, Best Practice and Information'.

Site Designation	Legislation (England & Wales)	Protection	Guidance
Site of Special Scientific Interest (SSSI)	Wildlife and Countryside Act 1981 (as amended)	It is an offence to carry out or permit to be carried out any potentially damaging operation. SSSIs are given protection through policies in the Local Development Plan.	Owners, occupiers, public bodies and statutory undertakers must give notice and obtain the appropriate consent under S.28 before undertaking operations likely to damage a SSSI. S.28G places a duty on all public bodies to further the conservation and enhancement of SSSIs. Planning Policy Statement 9: Biodiversity and Geological Conservation (ODPM 2005) for England or Technical Advice Note 5 in Wales.
Locally Designated Sites	There is no statutory designation for these	Sites are given protection through policies in the Local Development Plan.	Development proposals that would potentially affect these would need to provide a detailed justification for the work, an assessment of likely impacts, together with proposals for mitigation and restoration of habitats lost or damaged.